CLAIMS:

1. An apparatus for heating an infant comprising:
a surface for supporting said infant,
cover means configured to extend over said surface and including a portion which may be configured to at least a substantially visually opaque state or a substantially visually transparent state,
at least one radiant heating means in proximity with either said cover means or said surface, and
control means for energising said at least one radiant heating means such that in use the skin temperature of said infant is regulated within a predetermined range.

2. An apparatus for heating an infant as claimed in claim 1 wherein said apparatus further comprises temperature sensing means for sensing the skin temperature of at least one position on said infant, the output of which is supplied to said control means.

3. An apparatus for heating an infant as claimed claims 1 or 2 wherein said portion comprises at least one liquid crystal panel integrally formed with said cover means.

4. An apparatus for heating an infant as claimed in claim 3 wherein the remainder of said cover means excepting said portion is substantially visually opaque.

5. An apparatus for heating an infant as claimed in either claim 1 or 2 wherein said cover means is substantially composed of liquid crystal panels.

6. An apparatus for heating an infant as claimed in claims 1or 2 wherein said cover means includes a first access means for partial access to said infant.

7. An apparatus for heating an infant as claimed in claim 6 wherein said cover means is configurable between a closed position in which it substantially seals against said surface and an open position for full access to said infant.

8. An apparatus for heating an infant as claimed in claim 1 wherein said at least one radiant heating means comprises an upper radiant element in proximity with said cover means and a lower radiant element in proximity with said surface.

9. An apparatus for heating an infant as claimed in claim 8 wherein said upper radiant element comprises a resistive ink printed on the underside of said cover means.

10. An apparatus for heating an infant as claimed in claim 8 wherein said surface includes a mattressbeing transparent to infra-red wave length radiant energy, said lower radiant element being located underneath said mattress.

11. An apparatus for heating an infant as claimed in claim 10 wherein said lower radiant element comprises:

a housing means including a contact surface for contacting the underside of said mattress,

one or more radiant heating elements disposed within the bulk of said housing means in a location spaced from said contact surface and,

an infrared radiation barrier means blocking infrared radiation from said elements in directions away from said contact surface; said housing means incorporating infrared transmission means between said elements and at least adjacent regions of said contact surface, and said adjacent regions of said contact surface being infrared transmissible also.

12. An apparatus for heating an infant as claimed in claims 10 or 11 wherein said temperature sensing means (140) are disposed on the upper surface of said mattress (130) which in use contacts with the skin of said infant and measuring the skin temperature thereof.

13. An apparatus for heating an infant as claimed in claim 1 further comprising humidification means for providing humidified gases to said infant.

14. A mattress configured for use in a neonatal incubator comprising:

a flexible support structure being transparent to infra-red wave length radiant energy, and

a radiant element being located underneath said flexible support structure including:a housing means including a contact surface for contacting the underside of said mattress, one or more radiant heating elements disposed within the bulk of said housing means in a location spaced from said contact surface, and an infrared radiation barrier means blocking infrared radiation from said elements in directions away from said contact surface; said housing means incorporating infrared transmission means between said elements and at least adjacent regions of said contact surface, and said adjacent regions of said contact surface being infrared transmissible also.

15. A mattress as claimed in claim 14 wherein said flexible support structure comprises an gas filled cushion.

16. A mattress as claimed in claim 15 wherein said gas filled cushion is constructed from clear PVC.

17. A mattress as claimed in claim 15 wherein said gas filled cushion is constructed from clear Polythene.

18. A mattress as claimed in claim 14 wherein said flexible support structure comprises a gel-filled cushion.

19. A mattress as claimed in any one of claims 14 to 16 further comprising temperature sensing means on the upper side of said support structure configured to sense the skin temperature of a neonate in use supported on said structure.